

Enforcement Confidential----Do not release.

WA 3019
11/17/99
4a

RCRA Follow up Sampling/Case Development Inspection for:

Facility Name: J.H. Baxter & Co.

Facility Address: 6520 188th Northeast
Arlington, Washington 98223

Facility Mailing Address: P.O. Box 305
Arlington, Washington 98223

Facility Contacts: Georgia Baxter, Executive Vice president
Tom Orthmeyer, Plant Manager
Robert Crane, Assistant Plant manager
Kimberly Blodgett, Environmental Health and Safety Technician
James Clawson, Treating Engineer; HW Coordinator

NOW RELEASABLE

Kimberly A. Ogle
SIGNATURE/DATE
2/8/01

FILE COPY

Inspection Information

Inspection Date: November 17, 1999

Inspectors: Cheryl Williams
Jack Boller
Andrew Hess
Jed Januck

Report Author: Cheryl Williams

Date of Report: April 14, 2000

Weather Conditions: Dry, mostly overcast with occasional sun breaks.
Some light rain during the previous week.

Time of Inspection: 8:15 a.m. - 12:30 p.m.

Purpose of Inspection

The purpose of this inspection was primarily to collect samples from various areas around the drip pads to be analyzed for pentachlorophenol (PCP) to determine whether the drip pads are being operated in a manner consistent with RCRA requirements.

Inspection

This was an unannounced inspection. Mr. Jack Boller and I arrived at the facility at approximately 8:15am. Once our presence was known, we were escorted to the conference room

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**RCRA PERMIT
ADMINISTRATIVE RECORD
ITEM NUMBER 003
TOTAL NUMBER OF PAGES**

and joined by Ms. Kim Blodgett, the Environmental Health and Safety Officer, and Mr. Tom Orthmeyer, the Plant Manager. We were informed that some of the company's protocols had changed since our last visit and that we would need to conduct our opening interview with Ms. Georgia Baxter on the phone. (Ms. Baxter is the Executive Vice President of the company and is located in California). While we were waiting for Ms. Baxter to be reached by phone, Ms. Blodgett, reviewed the health and safety precautions and as part of the revised protocols took photocopies of our credentials. We told Mr. Orthmeyer and Ms. Blodgett that we would be taking samples and that they were welcome to take their own split samples. Once Ms. Baxter was on the phone we explained the purpose of our inspection. Ms. Baxter stated that she wanted to take split samples. We explained the purpose of the inspection was to confirm that the staining on the aprons was PCP and that two other inspectors from EPA would be joining us and their role would be to collect samples. We informed the company representatives that we would like to tour the facility again prior to the arrival of our colleagues. Ms. Baxter then asked that she be contacted by phone for the exit interview. Mr. Orthmeyer told us that they had been working at correcting the various items that we mentioned during our last inspection. For example, they had been working on sealing the cracks in the containment area of the tank farm.

We proceeded outside with Ms. Blodgett and Mr. Orthmeyer and were joined by Mr. Bob Crane, the Assistant Plant Manager. We noticed that there were many deep puddles around the property some under piles of treated wood. Throughout Parcel A, the treated wood side, there was standing water in the ditches that flowed into the french drains. (see photo # 14 of french drain # 23). The drainage ditch which runs along the North side of the property between the office and Parcel A had an oily sheen in it. This drainage ditch flows into french drain #23. We began the inspection at the aprons and drip pad on the north side of the retorts. Three charges (charges consist of several poles that have been bundled together for treatment in the retorts) were on the drip pad associated with retort number 2 (the eastern most retort). Since our last inspection the seams around the two drip pads (between the drip pads and aprons and between the center asphalt strip and the drip pads) had been sealed. We noticed that at the low point of the slope of each apron was a long, narrow puddle which extended the length of the apron parallel to the drip pads from south to north and appeared to drain into the french drain at the end of each drip pads (see attached photos #s 9,11,13,17).

We continued on the facility inspection by walking across the drip pad associated with retort number 3, to the stairs which lead to the tank farm. There are two set of stairs which lead to the tank farm. Each set is located to the left of a retort door. To access the tank farm, employees must take one of those two sets of stairs. However, to use the stairs located between the two retorts employees must walk across the 12-foot wide drip pad, unless they walk the entire 165-foot length of the drip pads down the center asphalt strip between the drip pads. During our August inspection and the inspection on this day, we observed people walking across the drip pads to gain access to the tank farm using the stairs located between the two retorts. From our observations and photographic evidence (see photo #s 6 & 7) the facility is not minimizing tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by personnel. 40 CFR §265.443(j)

The cracks we had previously reported in the cement floor of the tank farm containment area had been sealed and the entire floor of the tank farm containment area had been painted with a cement paint. (photo # 1)

There was only one drum in the satellite accumulation area in the tank farm and it was closed per RCRA requirements.

In the concrete area around the butt tank, we observed the location of the cracks we noted during our last inspection. It appeared that there had been an attempt to seal them. Mr. Orthmeyer stated that this was the area at which they were having some difficulty getting the sealant to adhere due to the weather conditions. (see attached photo # 2)

We then walked to the shop area on the northeast side of Parcel A, where during the previous inspection we had found a unlabeled, drum of used solvent which was not closed. The drum had been removed and there was no other drum in this location.

We then returned to the conference room to await Mr. Januch and Mr. Andy Hess, our colleagues who were to collect the samples. They arrived at approximately 10:20 a.m. Ms. Blodgett reviewed the health and safety plans for the company and then Mr. Hess explained the sampling plans and told the facility representatives that we planned to only analyze the samples for PCP. We returned to the retort area of Parcel A with Ms Blodgett, Mr. Orthmeyer and Mr. Crane. We were joined by Mr. Jim Clawson who gave his job title as Treating Engineer and Hazardous Waste Coordinator, the latter, he stated was on an as needed basis.

Mr. Hess collected samples for EPA and Mr. Clawson (with Mr. Hess' assistance) took samples for the company. Both Mr. Januch & Mr. Boller took photographs of the sample collection for EPA and Mr. Orthmeyer took photographs for the company.

The first sample was collected on the apron just outside of retort number 2 (the east retort, south end of apron). For a complete report of the sampling collection which took place, refer to the memorandum from Mr. Hess to Cheryl Williams, dated December 16, 1999.

The results of the analysis of the samples is set forth in the December 16, 1999 memo. The results of samples, except the blank, showed PCP. The results of the analyses of the wipe samples ranged from 34,000,000 ppb to 120,000,000 ppb. The results of the analyses of the soil samples ranged from 9,600 to 11,000 ppb and the results of the analyses of the water samples ranged from 170 to 520 ppb. These results indicate that the facility has not complied with 40 CFR § 265.443(b)(iii), (d) and (m).

While samples 7-10 were being taken, I observed the northern-most end of the two drip pads. The ends consist of a cement berm and a wooden stop made of dimensional lumber. Mr. Orthmeyer and Mr. Crane informed me that the cement berm was not part of the original drip pad design and was added later. At the end of the drip pad inside the end berm, I was able to see

where the liner exited the ground at the end of the "designed" drip pads at the corners. There was a noticeable crack between the added berm and the drip pads. (see photo #s 15 & 16). When I looked in the crack I was able to see liquid. This indicates that the facility is not in compliance with 40 CFR § 265.443(d). The width of the concrete berm at the end of each drip pad was cracked. There was a stain which appeared to extend over the berm and onto the drip pad. (see same photo). The stain was a darker color than the drip pad and was marked with tire treads. The regulation at 40 CFR §265.443(j) requires that "[d]rip pads must be operated and maintained in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by equipment."

Once the samples were collected, Mr. Boller and I returned to the conference room with the facility representatives while Mr. Hess and Mr. Januch finished labeling and preparing the samples. Once in the conference room, Ms. Baxter was again contacted via phone and we conducted the exit interview. Ms. Baxter asked when our report would be ready how we expected to use any data that we may get. She stated that we would find PCP in the samples on the aprons and believed that would be part of Baxter's "de minimis" program. Thus, J.H. Baxter has detected release of hazardous waste but has not complied with 40 CFR § 265.443(m).

File Review

I conducted a file review at EPA following this inspection and found information to support that french drains numbered #13 and 14 "are connected via a horizontal pipe beneath the surface which then is hard piped across the road to a culvert which directs flow to french drain #23" (Baxter's letter to Ecology dated January 28, 1999, RE: Comments on Revised Draft NPDES Waste Discharge Permit No. WA-003142-9, dated December 14, 1998).

Calvin Terada, an Underground Injection Control (UIC) Program inspector has reported to me orally and Jonathan Williams, an Underground Injection Control Program inspector, documented in his inspection notes for the June 4, 1999 UIC inspection that during a discussion with Bob Crane, Mr. Crane said that the drains are cleaned out every 2-4 years due to buildup of silt and the sludge removed from the drains is put onto the treated log storage area soil surface.

Baxter has compiled four years of storm water data for the untreated side of the facility. The composite sampling results of "french drains numbered 10, 11 and 16-22, located on the untreated side of the facility, contains PCP, listed hazardous waste (F032). The topographic maps show that the location of these french drains are in the the lowest portion of the facility. Storm water forms large ponds in this area which makes sampling of many of the individual french drains difficult or impossible. Any ponding that contains F032 is a hazardous waste surface impoundment as defined in 40 CFR §260.10 and manages a listed hazardous waste.

In addition, an Ecology water compliance inspection report dated 3/7/96 showed that a sample from the down spout of the roof above the cooling tower/evaporator showed PCP contamination.

Conclusions:

1. The drip pads and associated collections systems are not designed and operated to convey, drain, and collect liquid resulting from drippage or precipitation in order to prevent run-off as required by 40 CFR §265.443(d).
2. J.H. Baxter has disposed of hazardous waste by operating in such a way that listed hazardous waste is discharged or deposited or spilled onto land and J.H. Baxter is disposing of hazardous waste contaminated storm water in the storm water collection ditches and on the ground throughout on the property. The ditches are hazardous waste surface impoundments and other impacted ground is a landfill as defined by RCRA. J.H. Baxter and Co. is operating without a permit in violation of 3005 of RCRA.
3. J.H. Baxter does not operate the drip pads in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pads as a result of activities by personnel or equipment as required by 40 CFR §265.443(j).
4. J.H. Baxter has detected release of hazardous waste but has not complied with 40 CFR §265.443(m).

J.H Baxter (Arilington) WAD053823019 Inspection on November 17,1999

Photographer: Jack Boller

Witness: Cheryl Williams

Photo Number: 1

Comments: Tank farm containment crack at this location sealed and painted since last visit.



Photo Number 2:

Comments: Butt tank containment area; cracks sealed since last visit



J.H Baxter (Arilington) WAD053823019 Inspection on November 17,1999

Photographer: Jack Boller Witness: Cheryl Williams

Photo Number: 3

Comments: Staining on south end of east apron



Photo Number 4:

Comments: Staining on south end of east apron.



J.H Baxter (Arlington) WAD053823019 Inspection on November 17,1999

Photographer: Jack Boller Witness: Cheryl Williams

Photo Number: 5

Comments: South end of east drip pad/apron; sampling newly sealed seam



Photo Number 6:

Comments: South end of asphalt which divides the drip pads; stairs to tank farm behind pole.



J.H Baxter (Arlington) WAD053823019 Inspection on November 17,1999

Photographer: Jack Boller Witness: Cheryl Williams

Photo Number: 7

Comments: South end of west apron; note facility personnel standing on drip pad



Photo Number 8:

Comments: South end of west apron



J.H Baxter (Arilington) WAD053823019 Inspection on November 17,1999

Photographer: Jack Boller

Witness: Cheryl Williams

Photo Number: 9

Comments: Middle of west apron in depression which channels to french drain #13 (note equipment tracks up to drip pad)



Photo Number: 10

Comments: Middle of west apron in depression which channels to french drain #13



J.H Baxter (Arilington) WAD053823019 Inspection on November 17,1999

Photographer: Jack Boller Witness: Cheryl Williams

Photo Number: 11

Comments: French drain #13 (note equipment tracks on apron)



Photo Number: 12

Comments: North end of east apron in channel which flows to french drain #14



J.H Baxter (Arilington) WAD053823019 Inspection on November 17,1999

Photographer:

Jack Boller

Witness:

Cheryl Williams

Photo Number: 16

Comments: End of east drip pad (note: ^{the} crack @ point liner ends is out of the ground, free liquid was seen in crack) (note: tire tracks on drip pad)



Photo Number 17:

Comment: Picture taken from north end of drip pads.



J.H Baxter (Arlington) WAD053823019 Inspection on November 17,1999

Photographer: Jack Boller

Witness: Cheryl Williams

Photo Number: 13

Comments: French drain #14



Photo Number: 14

Comments: French drain #23



J.H Baxter (Arilington) WAD053823019 Inspection on November 17,1999

Photographer: Jack Boller Witness: Cheryl Williams

Photo Number: 15

Comments: Berm & bumpers @ north ends of drip pads according to facility representatives.
(note: corner of liner visible, free liquid could be seen in cracks; staining and debris)





EPA Region 10
1200 Sixth Avenue
Seattle WA 98101

FIELD SAMPLE DATA AND CHAIN OF CUSTODY SHEET

Case No.: _____ Enforcement/Custody Miscellaneous: _____ Sampling Crew: ANDY HESS
LEO JANUCH
 Project Code: ESD-043A Account: 9900B10P0102E Data Confidential
 Name/Location: J.H. BAXTER 1 Possible Toxic/Hazardous
 Proj. Off.: ANDY HESS Tel.# 360 371-3711 Data for STORET Recorder: [Signature]
(Signatures Required)

SOURCE CODE	Matrix					# CONTAINERS						LAB NUMBER			STORET STATION NUMBER				SAMPLING DATE & TIME				TRAFFIC REPORT NUMBERS		SAMPLER'S INITIALS	STATION DESCRIPTION
	Oil	Water	Sediment	Tissue w/w	Prsvd (Y/N)	Qt. Cubit	Gal. Cubit	16 oz.	8 oz.	120 ml.	40 ml.	Other	Yr.	Wk	Seq	Yr	Mo	Dy	Time	Org.	Inorg.					
83			✓							1		99	47	4350				99	11	17	1102			AH	#1 APRON, NORTH OF RETORT #2	
83			✓							1				4351										AH	#2 SEAM BETWEEN APRON & DRIP PAD OF RETORT #2	
83			✓							1				4352										AH	#3 AREA BETWEEN THE 2 DRIP PADS	
83			✓							1				4353										AH	#4 SEAM B/APRON & DRIP PAD OF RETORT #3	
83			✓							1				4354										AH	#5 APRON, NORTH SIDE OF RETORT #3	
49		✓								1				4355										AH	#6 SOIL FROM RETORT #3 APRON	
36	✓									1				4356										AH	#7 WATER FROM DRAW NORTH OF #3 APRON	
49		✓								1				4357										AH	#8 SEDIMENT N. END OF #2 APRON	
36	✓									1				4358										AH	#9 WATER N. END OF #2 APRON	
36	✓									1				4359										AH	#10 WATER FROM DRAW N. OF #2 APRON	
00		✓								1				99474360											AH	#11 BLANK SWAB

LAB NUMBER			DEPTH	COL MTD CD	QA CODE	TEMP DEG C	pH	CNDCTVTY umho/cm	COMPOSITE ONLY		Condition of Samples upon Receipt at Lab:			
Yr.	Wk	Seq	Unit	Type					Mo.	Day	Time	Type	Freq	Custody Seals Intact: <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> none
												CHAIN OF CUSTODY RECORD		
Relinquished by: (signature)										Received by: (signature)			Date/Time	
Relinquished by: (signature)										Received by: (signature)			Date/Time	
Relinquished by: (signature)										Received by: (signature)			Date/Time	
Relinquished by: (signature)										Received by Mobile Lab For Field Analysis: (signature)			Date/Time	
Dispatched by: (signature)										Date/Time	Received for Lab by: (signature)		Date/Time	
Method of Shipment												HAND DELIVERED		

★ Source Codes and Descriptions ★

Code	Description	Code	Description
00	Unspecified Source	60	Air (General)
01	Unknown Liquid Media (Drum/Tank)	61	Ambient Air
02	Unknown Liquid Media (Spill Area)	62	Source or Effluent Air
03	Unknown Liquid Media (Waste Pond)	63	Industrial or Workroom Air
		64	Hi-Vol Filter
10	Water (General)	70	Tissue (General)
12	Ambient Stream/River	71	Fish Tissue
13	Lake/Reservoir	72	Shellfish Tissue
14	Estuary/Ocean	73	Bird Tissue
15	Spring/Seepage	74	Mammal Tissue
16	Rain	75	Macroinvertebrate
17	Surface Runoff/Pond (General)	76	Algae
18	Irrigation Canal/Return Flow	77	Periphyton
		78	Plant/Vegetation
20	Well (General)	80	Oil/Solvent (General)
21	Well (Industrial/Agricultural)	81	Oil (Transformer/Capacitor)
22	Well (Drinking Water Supply)	82	Oil/Solvent (Drum/Tank)
23	Well (Test/Observation)	83	Oil/Solvent (Spill Area)
24	Drinking Water Intake	84	Oil/Solvent (Waste Pond)
25	Drinking Water (At Tap)		
30	Effluent Wastewater (General)	90	Commercial Product Formulation
31	Municipal Effluent	95	Well Drill Water
32	Municipal Inplant Waters	96	Well Drill Mud
33	Sewage Runoff/Leachate	97	Well Sealing Material
34	Industrial Effluent	98	Gravel Pack Material
35	Industrial Inplant Waters		
36	Industrial Surface Runoff/Pond		
37	Industrial Waste Pond		
38	Landfill Runoff/Pond/Leachate		
40	Sediment (General)		
42	Bottom Sediment or Deposit		
44	Sludge (General)		
45	Sludge (Waste Pond)		
46	Sludge (Drum/Tank)		
48	Soil (General)		
49	Soil (Spill/Contaminated Area)		
50	Bore Hole Material		

★ Collection Method Codes ★

Code	Description
00	Unknown
10	Hand Grab
11	Plastic Bucket
12	Stainless Steel Bucket
13	Brass Kemmerer
14	PVC Kemmerer
15	D.O. Dunker
16	DH 48/DH 49 Integrating Sampler
17	Van Dorn Bottle
18	Glass Dip Tube
19	Other
20	Automatic Sampler (General)
21	ISCO Auto Sampler
22	Manning Auto Sampler
25	Well Point Sampler (Pump)
26	Stainless Steel Bailer (Hand)
30	Dredge (Unspecified)
31	Dredge (Peterson)
32	Dredge (Van Dorn)
33	Dredge (Van Veen)
34	Core
35	Freeze Core
40	Macroinvertebrate (Unspecified)
41	Picked by Hand
42	Kick Net
43	Surber
44	Modified Hess Type Sampler
45	Rock Basket
46	Hester Dandy Sampler
50	Fish (Unspecified)
51	Fish (Shocking)
52	Fish (Netting)
53	Fish (Hook & Line)
54	Fish (Poison)
60	Periphyton (Unspecified)
61	Rock Scraping
62	Glass Slides

★ Composite Codes ★

Type	Description
T	Time Composite
S	Space Composite
F	Flow Proportioned Composite
B	Both Space & Time Composite
Freq	Description
C	Continuous
G	Grabs (# Unknown)
#	Number of Grabs

★ Depth Codes ★

Unit	Description
F	Feet
M	Meters
Type	Description
-	Regular (Blank)
V	Vertically Integrated
B	Sample at Bottom

★ Quality Assurance Codes ★

Code	Description
FBLK	Field Blank Sample (Dist H ₂ O)
FXFR	Field Transfer Blank Sample
FTRS	Field Transport Blank Sample
FRXS	Field Reagent Sample
FRNS	Field Rinse Water Sample
FSPK	Field Spiked Sample
FDP1	Field Duplicate Sample #1
FDP2	Field Duplicate Sample #2
FSPL	Field Split Sample

JH Baxter RCRA Sampling Photograph Log, 11/17/99

Photos 959-961: Overview of sampling area.

962 - sample site #1

963 - sample site #2 near retort #2 at seam between drip pad and asphalt apron.

964 - sample #3 on asphalt between #2 and #3 drip pads

965 - sample #4 on seam between asphalt apron and drip pad for retort #3, on north side of retort #3 and west side of the drip pad.

966 - sample #5

967 - overview

968 - sample #6

969 - West drain from which sample #7 was taken

970 - Sample #7

971 - Area near sample #8 & 9

972 - Sample # 8 & 9, general area

973 - Sample #9

974 - East Drain sample location for sample #10

975 - Sample #10

976 - Sample #10

977 - East side of retorts/drip pads

978 - East side of retorts/drip pads

979 - Pentachlorophenol label

980 - Pentachlorophenol label

Photographs #959-961 were taken by Andrew Hess, USEPA

Photographs #962-980 were taken by Jed Januch, USEPA

J.H. BAXTER



959

11/17/1999



960

11/17/1999

PHOTOS BY ANDREW HESS, USEPA
AND JED JANUCH, USEPA



961

11/17/1999



962

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11/17/1999



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 LABORATORY
7411 BEACH DR. EAST
PORT ORCHARD, WASHINGTON 98366

December 16, 1999

MEMORANDUM

SUBJECT : **JH Baxter**

RCRA Sampling Inspection
Arlington, Washington

FROM: Andrew Hess, Environmental Scientist
Investigations and Engineering Unit

TO: Cheryl Williams
Office of Wastes and Chemical Management

Attached are the laboratory results, photographs, and other supporting documentation for the RCRA sampling inspection at JH Baxter, Arlington, Washington, conducted on November 17, 1999. Samples were collected by myself with the assistance of Jed Januch, also of the Office of Environmental Assessment.

Wipe samples were collected using a new, sterile 4" x 4" gauze for each sample. Methanol was added to each gauze prior to the initial wipe. A typical area wiped was about 100 square centimeters.

Sediment samples were collected by using new, solvent rinsed, stainless steel spoons. Water samples were collected by using new 10 ml glass pipettes. All sample jars were pre-cleaned to EPA specifications. Duplicate or side-by-side samples were taken by, or provided to the facility. New, unused gauze wipes were submitted to the laboratory as a "blank" sample.

Below is a summary of the sample results:

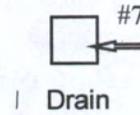
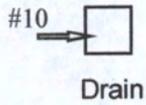
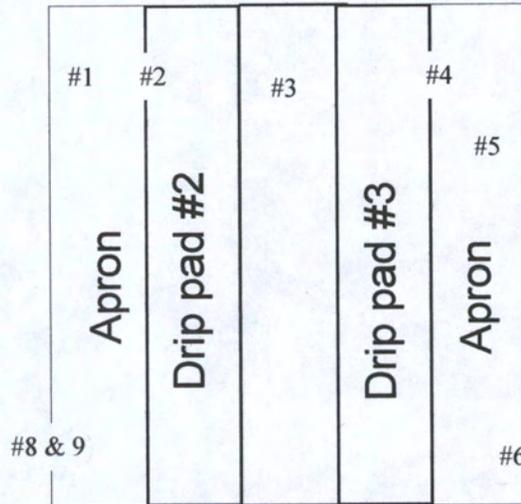
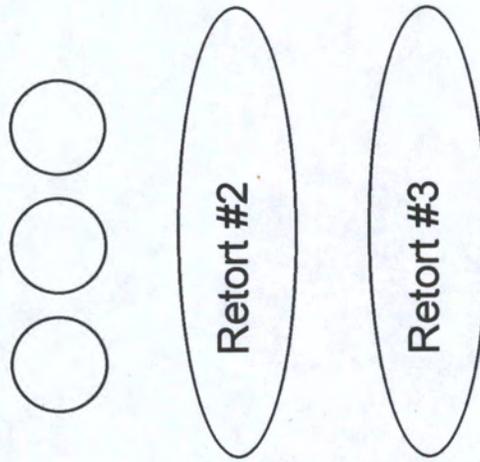
<u>Sample #</u>	<u>Location</u>	<u>PCP Concentration</u>
99474350	#1, Apron, north of retort #2 (wipe)	75,000,000 ug/Kg (7.5%)
99474351	#2, Seam between Apron and drip pad of retort #2 (wipe)	110,000,000 ug/Kg (11%)
99474352	#3, Area between the 2 drip pads (wipe)	120,000,000 ug/Kg (12%)
99474353	#4, Seam between apron and drip pad of retort #3 (wipe)	37,000,000 ug/Kg (3.7%)
99474354	#5, Apron, North side of retort #3 (wipe)	34,000,000 ug/Kg (3.4%)
99474355	#6, Soil from retort #3 apron	9,600 ug/Kg (ppb), (9.6 ppm)
99474356	#7, Water from drain north of #3 apron	390 ug/L (ppb)
99474357	#8, Soil from north end of #2 apron	11,000 ug/Kg
99474358	#9, Water from north end of #2 apron	170 ug/L
99474859	#10, Water from drain, north of #2 apron	520 ug/L
99474360	Blank gauze	not detected

The wipe results represent the concentration of pentachlorophenol from the extracted oil contained on the gauze. Attached is a site diagram showing the general locations from where the samples were collected.

If you have any questions, please feel free to call me at 360 871-8711.

Attachments: Laboratory Results
 Photographs and photograph log sheet
 Site Diagram
 Field Sample Data and Chain of Custody Sheet

JH Baxter, RCRA Sample Sites, 11/17/99





RECEIVED

DEC 16 1999

"RMSP Unit"
"OWCM"

November 30, 1999

MEMORANDUM

SUBJECT: QA Memo for J. H. Baxter Project at Arlington, WA for PCP Analysis of Samples

FROM: R. H. Rieck *R. H. Rieck*
Chemist

TO: Andy Hess
Project Officer

cc: *Cheryl Williams*

The Quality Assurance review for six wipe samples, three water samples, and two soil samples from J. H. Baxter located at Arlington, WA for PCP has been completed. Extraction and analysis of the wipe and soil samples were performed by EPA Methods 3540B Modified and 8151 respectively. Extraction and analysis of the water samples were performed by EPA Methods 3510B Modified and 8151 respectively. The samples included in this memo are:

99474350-54 and 99474360 (Gauze wipe samples),
99474355 and 99474357 (Soil samples), and
99474356, 99474358, and 99474359 (Water samples).

I. Holding Times:

Acceptable. All samples for this sample set were collected November 17, 1999. The samples were extracted November 19, 1999. The sample extracts were analyzed November 23, 1999. The sample dilutions were reanalyzed November 30, 1999 because the septum on the GC started to leak near the end of the analysis run on the 23rd. All holding times until analysis were within the allowable 40 days. With all holding times being acceptable no qualifiers were assigned on this basis.

II. Instrument Performance:

A Tracor GC using dual EC detectors with DB-35MS and DB-XLB megabore columns was used for this analysis.

A. DDT Retention Time: Not required for this analysis.

B. Retention Time Windows: Acceptable. Retention times for the standards were within the windows set by the initial calibration. The retention time windows used were 1.0% of the initial retention time.

C. DDT/Endrin Degradation: Not required for this analysis.

D. Surrogate Retention Times: Acceptable. All samples had retention time percent differences less than 1.5% for the surrogate 2,4,5-Tribromophenol (TBP).

III. Calibration:

A. Initial Calibration: Acceptable. For all samples covered by this memo, a five-point calibration was used for PCP (Pentachlorophenol). Both calibration curves were generated using a quadratic equation and had correlation coefficients of 0.999 or better.

B. Analytical Sequence: Acceptable.

C. Continuing Calibration: Acceptable. The continuing calibration standards were within the 15 percent difference criteria for both columns. Therefore, no qualifiers were assigned on this basis.

IV. Method Blank Analysis:

Acceptable. Two blanks, OBO9323A1 and OBO9323A2, were analyzed with the wipe and soil samples. Two blanks, OBW9323A1 and OBW9323A2, were analyzed with the water samples. No target peaks occurred at or above the quantitation limit in any blank. Therefore, no qualifiers were assigned on this basis.

V. Surrogate Recoveries:

Acceptable. The TBP recoveries ranged from 81% to 92% with an average of 86.7% and a standard deviation of $\pm 4.9\%$ in the water samples, associated blanks and matrix samples. The TBP recoveries ranged from 91% to 129% with an average of 107% and a standard deviation of $\pm 14.2\%$ in the soil and wipe samples, associated blanks and matrix samples. No qualifiers were assigned on this basis for any of the samples in this set.

VI. Matrix Spike/Matrix Spike Duplicate:

Matrix spikes were prepared using reagent water, since there was insufficient water sample for splitting, spiked in duplicate with PCP, and analyzed with this set. The recoveries were 70% and 77%.

Matrix spikes were also prepared using gauze material which was the material used for collecting the wipe samples. The recoveries were 94% and 103% for PCP.

No qualifiers were assigned on this basis for any of the samples in this set.

VII. Compound Identification/Quantitation:

The following is a listing of PCP concentrations by sample number and matrix type:

<u>SAMPLE NUMBER</u>	<u>SAMPLE MATRIX</u>	<u>PCP CONCENTRATION</u>
99474350	WIPE	75,000,000 $\mu\text{g/Kg}$
99474351	WIPE	110,000,000 $\mu\text{g/Kg}$
99474352	WIPE	120,000,000 $\mu\text{g/Kg}$
99474353	WIPE	37,000,000 $\mu\text{g/Kg}$
99474354	WIPE	34,000,000 $\mu\text{g/Kg}$
99474360	WIPE BLANK	NOT DETECTED
99474355	SOIL	9,600 $\mu\text{g/Kg}$
99474357	SOIL	11,000 $\mu\text{g/Kg}$
99474356	WATER	390 $\mu\text{g/L}$
99474358	WATER	170 $\mu\text{g/L}$
99474359	WATER	520 $\mu\text{g/L}$

VIII. Overall Assessment/Data Use:

Acceptable for use with the qualifiers as assigned in the sections above. The data was evaluated using the guidelines set out in the "Laboratory Data Validation Functional Guidelines for Evaluating Organic Analyses" (Dec. '94).

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Report by Parameter for Project ESD-043A

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DEC 16 1999

"RMSP Unit"

"OWCM"

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description: #1 APRON, NORTH OF RETORT #2

Collected: 11/17/99
Matrix: Other
Sample Number: 99474350
Type: Reg sample

Result	Units	Qlfr
--------	-------	------

GC

Parameter : Herbicides

Method : 515.1

Determination of Chlorinated Acids in Water

Prep Method: 3540B

Analytes : 87865

Pentachlorophenol

75000000

ug/kg

118796

Phenol, 2,4,6-tribromo

117

%Rec

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 CHERYL WILLIAMS
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SA
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Report by Parameter for Project ESD-043A

Project Code:	ESD-043A	Collected:	11/17/99
Project Name:	J.H. BAXTER, ARLINGTON, WA	Matrix:	Other
Project Officer:	ANDY HESS	Sample Number:	99474351
Account Code:	0001B10P90102E	Type:	Reg sample
Station Description:	#2 SEAM BETWEEN APRON & DRIP PAD OF RETO		

		Result	Units	Qlfr
GC				
Parameter	: Herbicides			
Method	: 515.1	Determination of Chlorinated Acids in Water		
Prep Method:	3540B			
Analytes	: 87865	Pentachlorophenol	11000000	ug/kg
	118796	Phenol, 2,4,6-tribromo	120	%Rec

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description: #3 AREA BETWEEN THE 2 DRIP DAPS

Collected: 11/17/99
Matrix: Other
Sample Number: 99474352
Type: Reg sample

	Result	Units	Qlfr
--	--------	-------	------

GC

Parameter : Herbicides

Method : 515.1

Determination of Chlorinated Acids in Water

Prep Method: 3540B

Analytes : 87865

Pentachlorophenol

120000000

ug/kg

118796

Phenol, 2,4,6-tribromo

122

%Rec

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Report by Parameter for Project ESD-043A

Project Code:	ESD-043A	Collected:	11/17/99
Project Name:	J.H. BAXTER, ARLINGTON, WA	Matrix:	Other
Project Officer:	ANDY HESS	Sample Number:	99474353
Account Code:	0001B10P90102E	Type:	Reg sample
Station Description:	#4 SEAM B/APRON & DRIP PAD OF RETORT #3		

		Result	Units	Qlfr
GC				
Parameter	: Herbicides			
Method	: 515.1	Determination of Chlorinated Acids in Water		
Prep Method:	3540B			
Analytes	: 87865	Pentachlorophenol	37000000	ug/kg
	118796	Phenol, 2,4,6-tribromo	129	%Rec

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description: #5 APRON, NORTH SIDE OF RETORT #3

Collected: 11/17/99
Matrix: Other
Sample Number: 99474354
Type: Reg sample

Result Units Qlfr

GC

Parameter : Herbicides

Method : 515.1

Prep Method: 3540B

Analytes : 87865

118796

Determination of Chlorinated Acids in Water

Pentachlorophenol

Phenol, 2,4,6-tribromo

34000000

124

ug/kg

%Rec

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description: #6 SOIL FROM RETORT #3 APRON

Collected: 11/17/99
Matrix: Solid
Sample Number: 99474355
Type: Reg sample

		Result	Units	Qlfr
GC				
Parameter	: Herbicides			
Method	: 515.1	Determination of Chlorinated Acids in Water		
Prep Method:	3540B			
Analytes	: 87865	Pentachlorophenol	9600	ug/kg
	118796	Phenol, 2,4,6-tribromo	98	%Rec

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Report by Parameter for Project ESD-043A

Project Code:	ESD-043A	Collected:	11/17/99
Project Name:	J.H. BAXTER, ARLINGTON, WA	Matrix:	Liquid
Project Officer:	ANDY HESS	Sample Number:	99474356
Account Code:	0001B10P90102E	Type:	Reg sample
Station Description:	#7 WATER FROM DRAIN NORTH OF #3 APRON		

		Result	Units	Qlfr
GC				
Parameter :	Herbicides			
Method :	515.1	Determination of Chlorinated Acids in Water		
Prep Method:	3510	Separatory funnel liq-liq extraction		
Analytes :	87865	390	ug/L	
	118796	90	%Rec	

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description: #8 SEDIMENT N. END OF #2 APRON

Collected: 11/17/99
Matrix: Solid
Sample Number: 99474357
Type: Reg sample

		Result	Units	Qlfr
GC				
Parameter	: Herbicides			
Method	: 515.1	Determination of Chlorinated Acids in Water		
Prep Method:	3540B			
Analytes	: 87865	Pentachlorophenol	11000	ug/kg
	118796	Phenol, 2,4,6-tribromo	100	%Rec

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description: #9 WATER N. END OF #2 APRON

Collected: 11/17/99
Matrix: Liquid
Sample Number: 99474358
Type: Reg sample

		Result	Units	Qlfr
GC				
Parameter	: Herbicides			
Method	: 515.1	Determination of Chlorinated Acids in Water		
Prep Method	: 3510	Separatory funnel liq-liq extraction		
Analytes	: 87865	Pentachlorophenol	170	ug/L
	118796	Phenol, 2,4,6-tribromo	81	%Rec

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Report by Parameter for Project ESD-043A

Project Code:	ESD-043A	Collected:	11/17/99
Project Name:	J.H. BAXTER, ARLINGTON, WA	Matrix:	Liquid
Project Officer:	ANDY HESS	Sample Number:	99474359
Account Code:	0001B10P90102E	Type:	Reg sample
Station Description:	#10 WATER FROM DRAIN N. OF #2 APRON		

		Result	Units	Qlfr
GC				
Parameter	: Herbicides			
Method	: 515.1	Determination of Chlorinated Acids in Water		
Prep Method	: 3510	Separatory funnel liq-liq extraction		
Analytes	: 87865	Pentachlorophenol	520	ug/L
	118796	Phenol, 2,4,6-tribromo	92	%Rec

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description: #11 BLANK SWAB

Collected: 11/17/99
Matrix: Other
Sample Number: 99474360
Type: Reg sample

	Result	Units	Qlfr
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GC

Parameter : Herbicides

Method : 515.1

Determination of Chlorinated Acids in Water

Prep Method: 3540B

Analytes : 87865

Pentachlorophenol

ND

118796

Phenol, 2,4,6-tribromo

91

%Rec

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description:

Collected:
Matrix: Liquid
Sample Number: OBF9323A1
Type: Matrix Spike

		Result	Units	Qlfr
GC				
Parameter	: Herbicides			
Method	:			
Prep Method:				
Analytes	: 87865	Pentachlorophenol	70	%Rec
	118796	Phenol, 2,4,6-tribromo	83	%Rec

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description:

Collected:
Matrix: Liquid
Sample Number: OBF9323A1
Type: Matrix Spike Dupl

		Result	Units	Qlfr
GC				
Parameter :	Herbicides			
Method :				
Prep Method:				
Analytes :	87865	Pentachlorophenol	77	%Rec
	118796	Phenol, 2,4,6-tribromo	91	%Rec

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description:

Collected:
Matrix: Other
Sample Number: OBF9323B1
Type: Matrix Spike

		Result	Units	Qlfr
GC				
Parameter	: Herbicides			
Method	:			
Prep Method:				
Analytes	: 87865	Pentachlorophenol	94	%Rec
	118796	Phenol, 2,4,6-tribromo	94	%Rec

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description:

Collected:
Matrix: Other
Sample Number: OBF9323B1
Type: Matrix Spike Dupl

	Result	Units	Qlfr
--	--------	-------	------

GC

Parameter : Herbicides

Method :

Prep Method:

Analytes : 87865	Pentachlorophenol	103	%Rec
118796	Phenol, 2,4,6-tribromo	103	%Rec

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description:

Collected:
Matrix: Other
Sample Number: OBO9323A1
Type: Blank

		Result	Units	Qlfr
GC				
Parameter	: Herbicides			
Method	: 515.1	Determination of Chlorinated Acids in Water		
Prep Method	: 3540B			
Analytes	: 87865			ND
	118796	93	%Rec	

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description:

Collected:
Matrix: Other
Sample Number: OBO9323A2
Type: Blank

		Result	Units	Qlfr
GC				
Parameter	: Herbicides			
Method	: 515.1	Determination of Chlorinated Acids in Water		
Prep Method:	3540B			
Analytes	: 87865			ND
	118796	93	%Rec	

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description:

Collected:
Matrix: Liquid
Sample Number: OBW9323A1
Type: Blank

		Result	Units	Qlfr
GC				
Parameter	: Herbicides			
Method	: 515.1	Determination of Chlorinated Acids in Water		
Prep Method	: 3510	Separatory funnel liq-liq extraction		
Analytes	: 87865	Pentachlorophenol	0.38	ug/L
	: 118796	Phenol, 2,4,6-tribromo	81	%Rec

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Report by Parameter for Project ESD-043A

Project Code: ESD-043A
Project Name: J.H. BAXTER, ARLINGTON, WA
Project Officer: ANDY HESS
Account Code: 0001B10P90102E
Station Description:

Collected:
Matrix: Liquid
Sample Number: OBW9323A2
Type: Blank

		Result	Units	Qlfr
GC				
Parameter	: Herbicides			
Method	: 515.1	Determination of Chlorinated Acids in Water		
Prep Method	: 3510	Separatory funnel liq-liq extraction		
Analytes	: 87865	0.38	ug/L	U
	118796	89	%Rec	